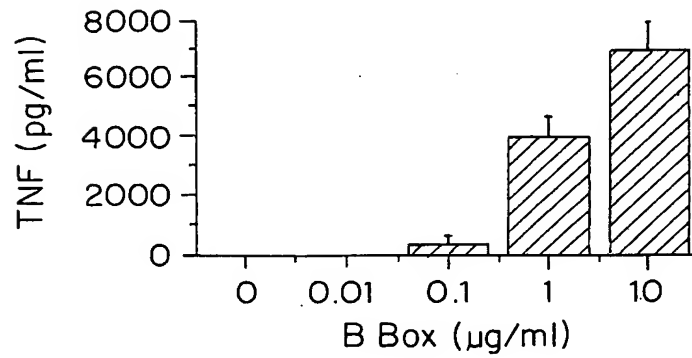
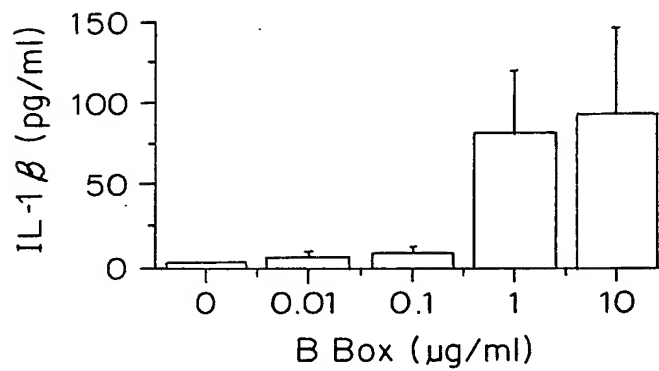


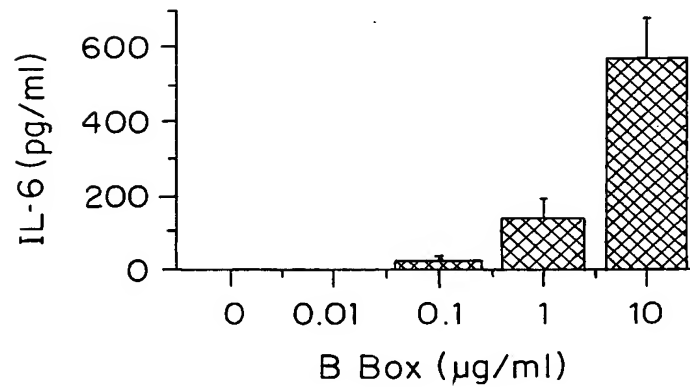
FIG. 1



**FIG. 2A**



**FIG. 2B**



**FIG. 2C**

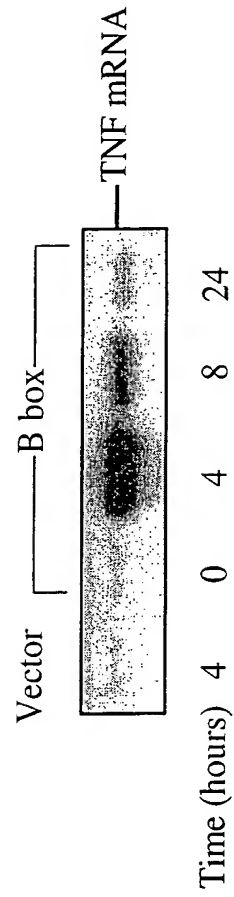
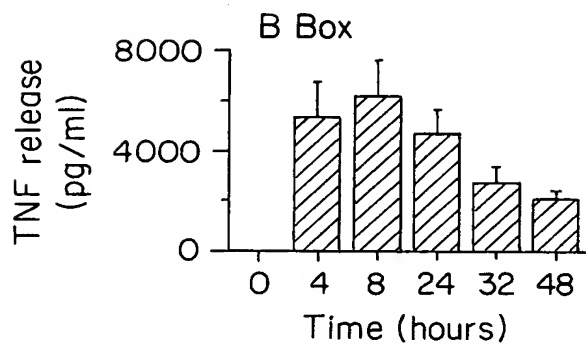
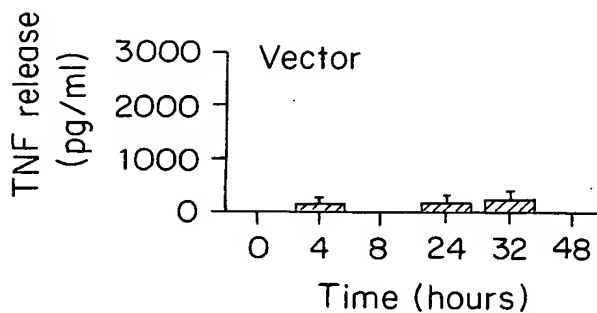


FIG. 2D



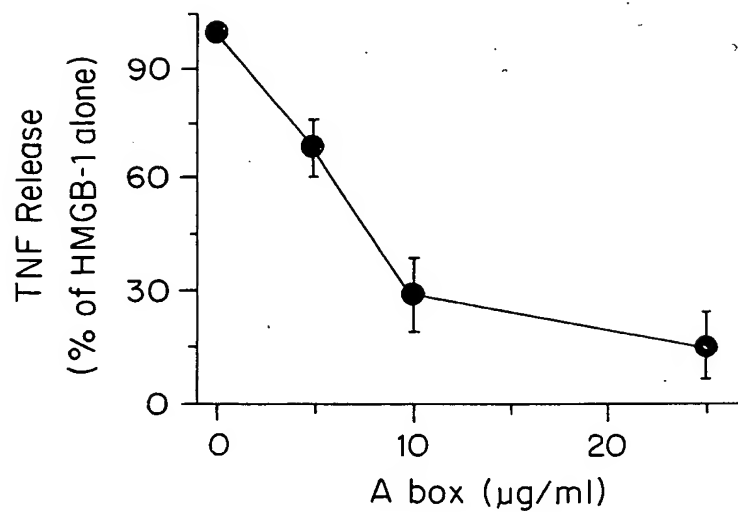
**FIG. 2E**



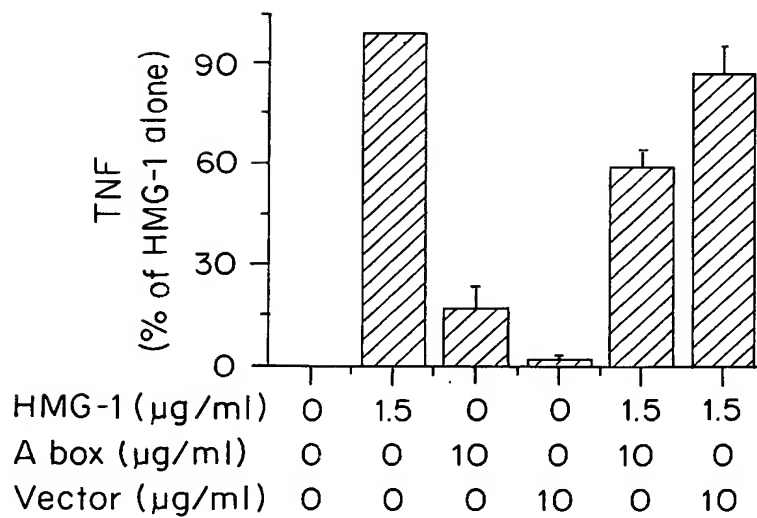
**FIG. 2F**

B box mutants	TNF release (pg/ml)
B box: 74 amino acids	5675±575
1-20	2100±756
16-35	100±10
30-49	120±75
45-64	100±36
60-74	100±20

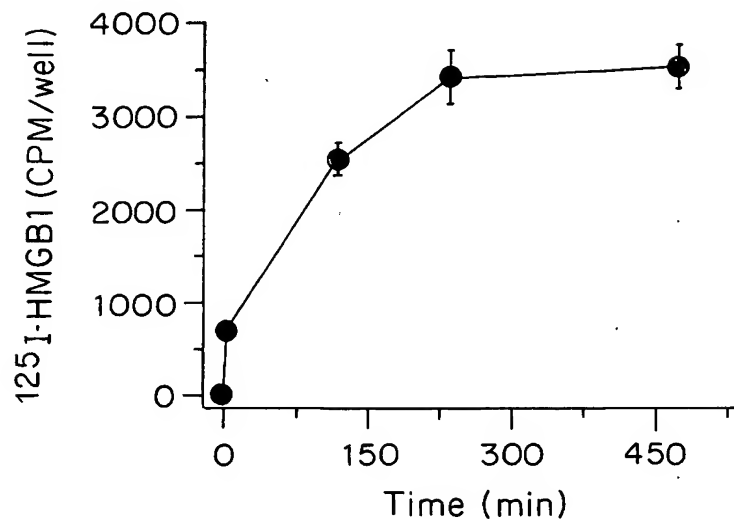
**FIG. 3**



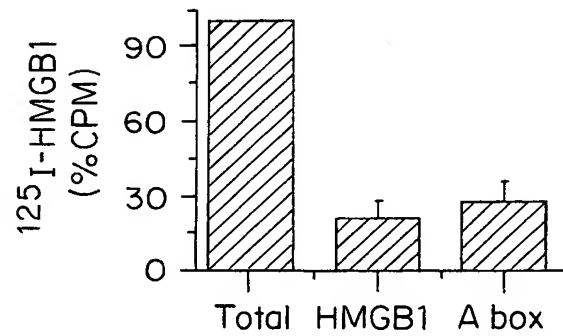
**FIG. 4A**



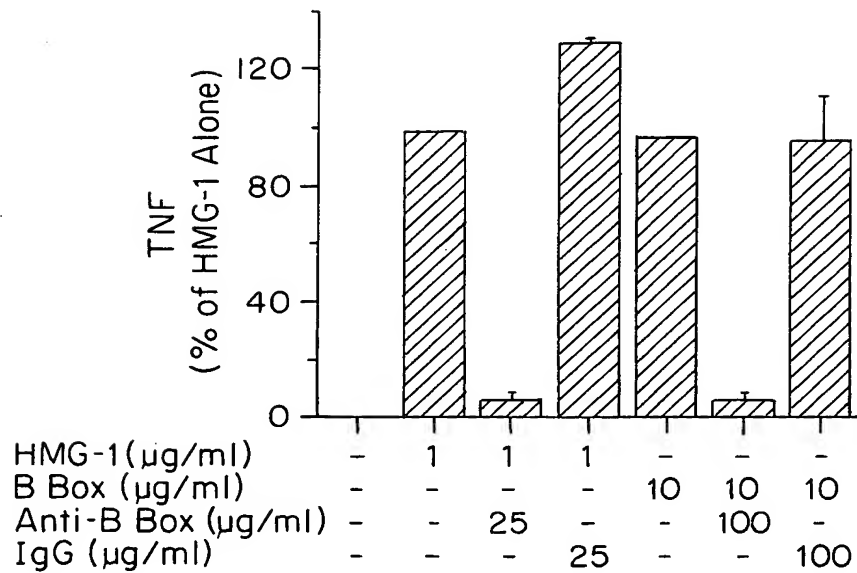
**FIG. 4B**



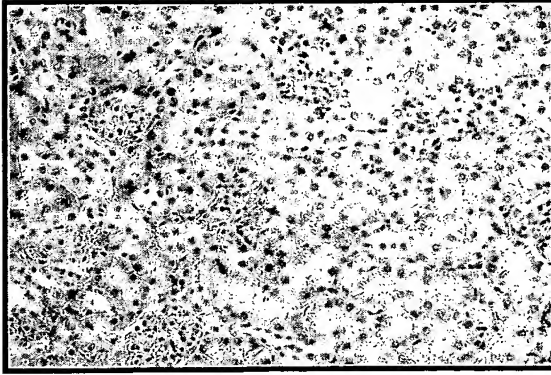
**FIG. 5A**



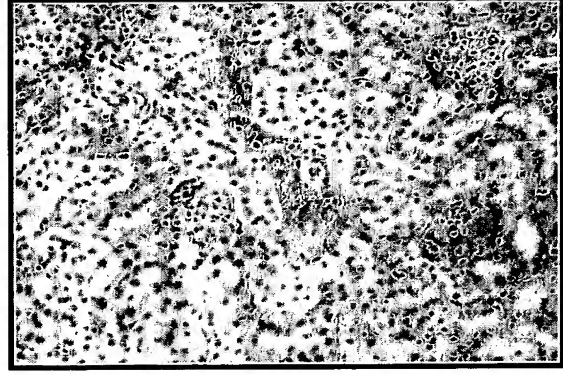
**FIG. 5B**



**FIG. 6**



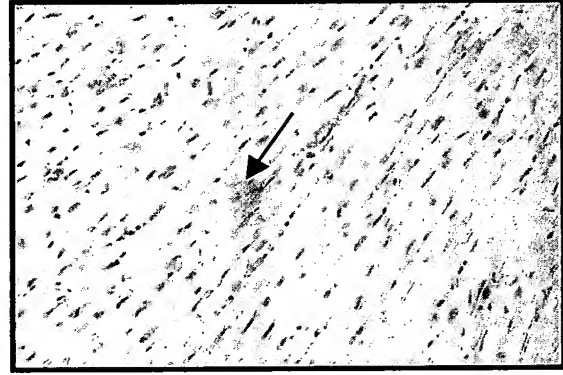
**FIG. 7A**



**FIG. 7B**



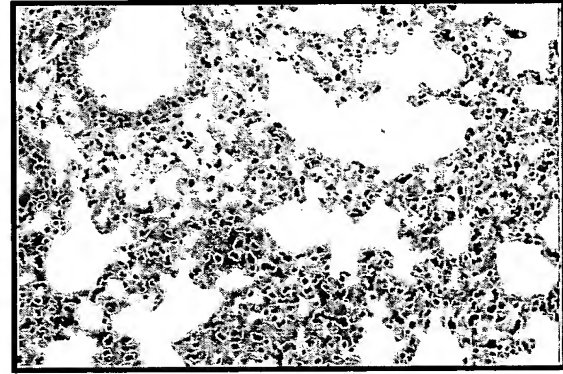
**FIG. 7C**



**FIG. 7D**



**FIG. 7E**



**FIG. 7F**

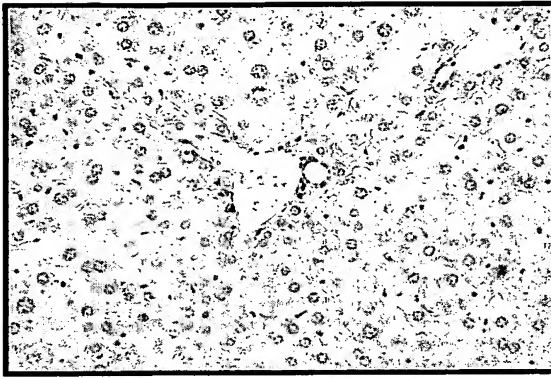


FIG. 7G

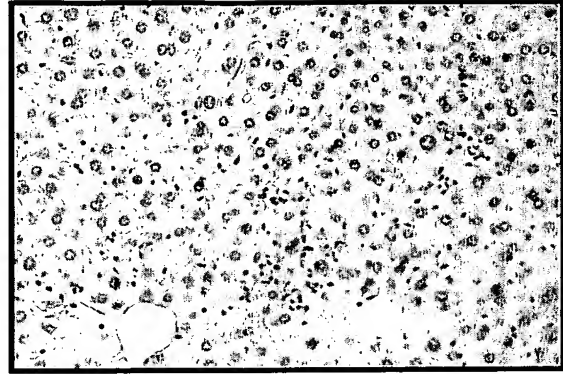


FIG. 7H

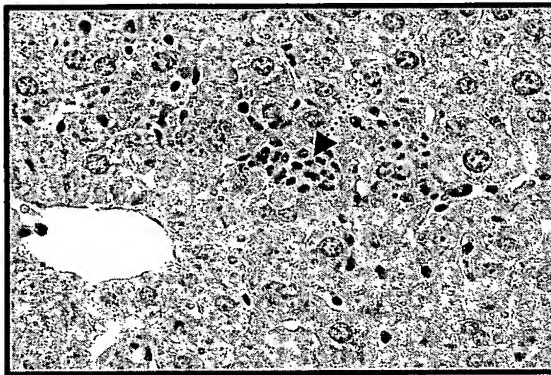


FIG. 7I

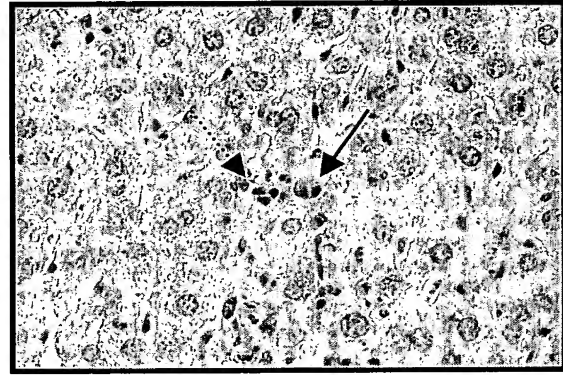
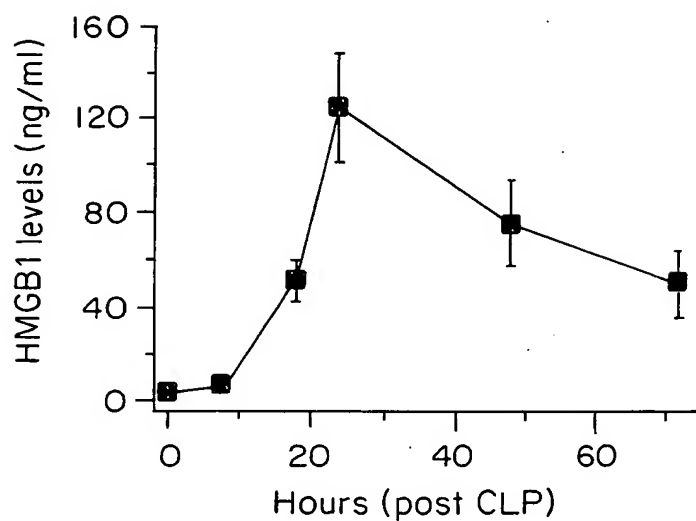
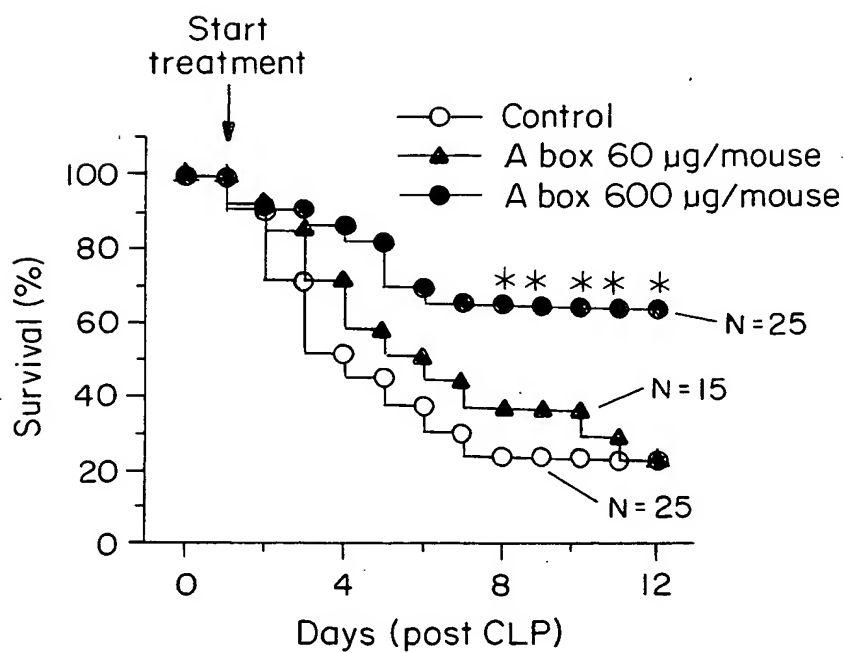


FIG. 7J





**FIG. 8**



**FIG. 9**

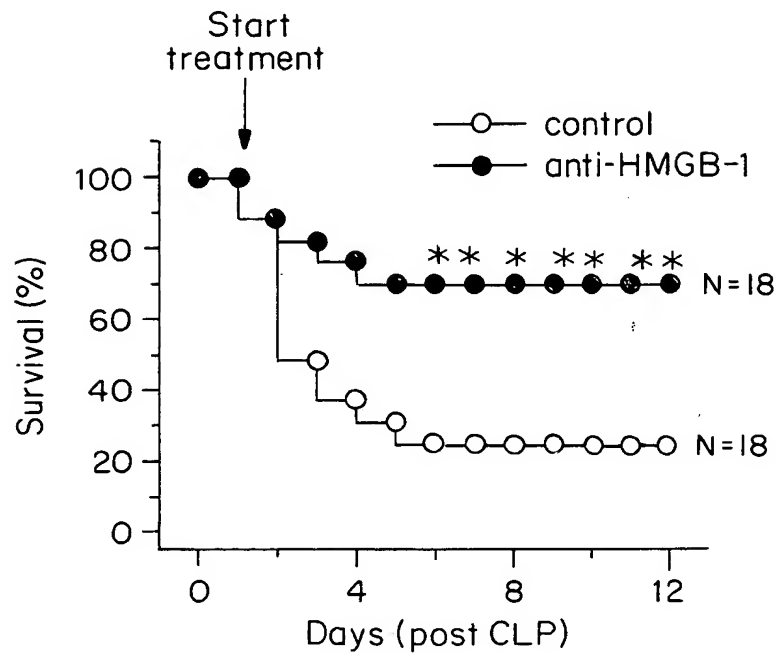


FIG. IOA

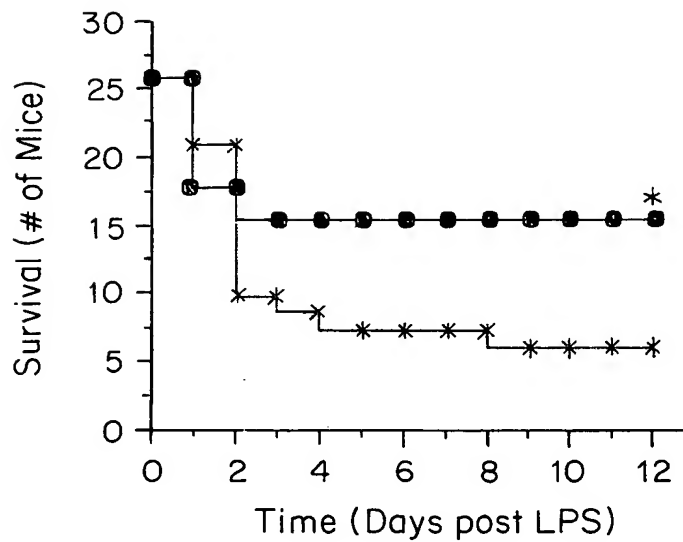
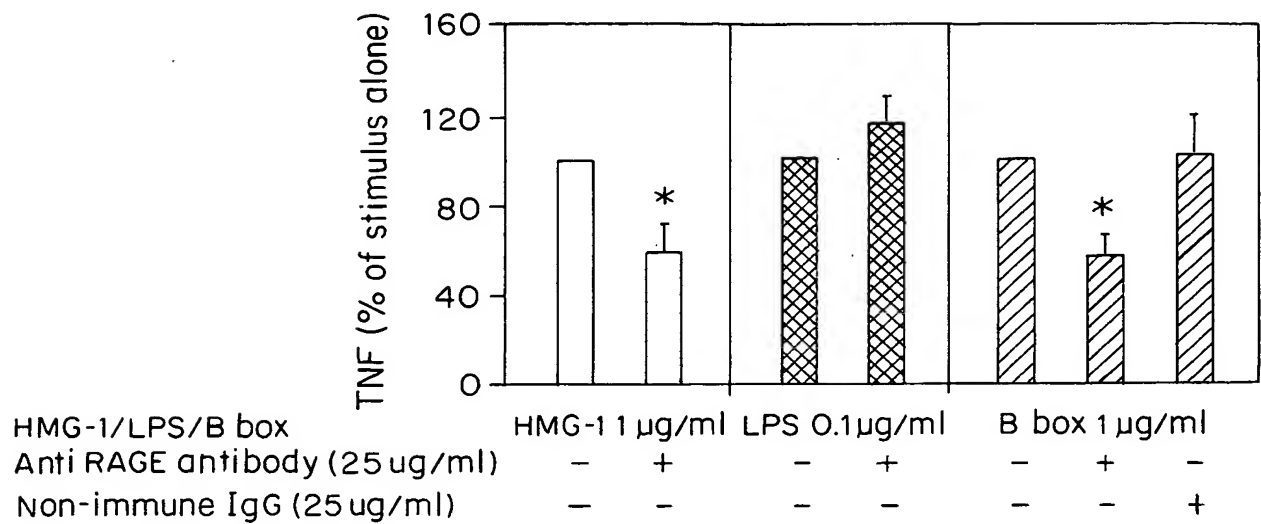
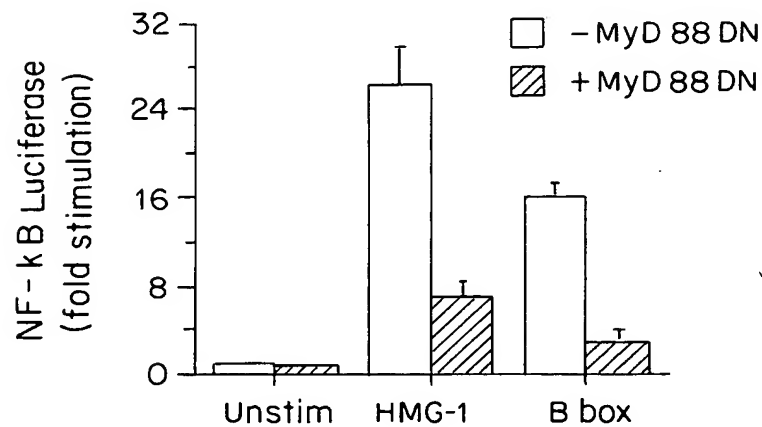


FIG. IOB



**FIG. IIA**



**FIG. IIB**

FIG. 12A

SEQ ID NO:1 - Human HMG1 amino acid sequence

1 mgkgdppkpr gkmssyaffv qcreehkkk hpdasvnfse fskkcserwk tmsakekgkf  
61 edmakadkar yeremktyip pkgetkkkfk dpnapkrpps afflcseyr pkikgehppl  
121 sigdvakklg emwnntaadd kqpyekkaak lkeyekdia ayrakgkpa akkgvvkaek  
181 skkkkeeed eedeedeeee edeededeee dddde

FIG. 12B

SEQ ID NO:2 - Mouse and Rat HMG1 amino acid sequence

1 mgkgdppkpr gkmssyaffv qcreehkkk hpdasvnfse fskkcserwk tmsakekgkf  
61 edmakadkar yeremktyip pkgetkkkfk dpnapkrpps afflcseyr pkikgehppl  
121 sigdvakklg emwnntaadd kqpyekkaak lkeyekdia ayrakgkpa akkgvvkaek  
181 skkkkeeedd eedeedeeee eeededeeee dddde

FIG. 12C

SEQ ID NO:3 - HUMAN HMG2 amino acid sequence

1 mgkgdppkpr gkmssyaffv qcreehkkk hpdssvnfae fskkcserwk tmsakekskf  
61 edmaksdkar ydremknyvp pkgdkkgkkk dpnapkrpps afflcsehr pkiksehppl  
121 sigdtakklg emwseqsakd kpyeqkaak lkeyekdia ayrakgksea gkkgpgrptg  
181 skkknepede eeeeeeded eeededede

FIG. 12D

SEQ ID NO:4 - Human, mouse and rat HMG1 A box protein sequence

1 pdasvnfsef skkcserwkt msakekgkfe dmakadkary eremktyipp kget

FIG. 12E

SEQ ID NO:5 - Human, mouse and rat HMG1 B box protein sequence

1 napkrppsaf flfcseyrpk ikgehpplsi gdvakklgem wnntaaddkq pyekkaalk  
61 ekyekdiaa

FIG. 12F

SEQ ID NO:6 - forward PCR primer for human HMG1

gatgggcaaaggagatcctaag.

FIG. 12G

SEQ ID NO:7 - reverse PCR primer for human HMG1

gcggccgcttattcatcatcatcttc

FIG. 12H

SEQ ID NO:8 - forward PCR primer for -C mutant of human HMG1

gatgggcaaaggagatcctaag

FIG. 12I

SEQ ID NO:9 - reverse PCR primer for -C mutant of human HMG1  
gcggccgctcacttgctttttcagccttgac

FIG. 12J

SEQ ID NO:10 - forward PCR primer for A+B boxes mutant of human HMG1  
gagcataagaagaagcaccca

FIG. 12K

SEQ ID NO:11 - reverse PCR primer for A+B boxes mutant of human HMG1  
gcggccgc tcacttgctttttcagccttgac

FIG. 12L

SEQ ID NO:12 - forward PCR primer for B box mutant of human HMG1  
aagttcaaggatcccaatgcaaag

FIG. 12M

SEQ ID NO:13 - reverse PCR primer for B box mutant of human HMG1  
gcggccgctcaatatgcagctatatccttttc

FIG. 12N

SEQ ID NO:14 - forward PCR primer for N'+A box mutant of human HMG1  
gatgggcaaaggagatcctaag

FIG. 12O

SEQ ID NO:15 - reverse PCR primer for N'+A box mutant of human HMG1  
tcactttttgtctccccttggg

1 mgkgdpkkpr gkmssyaffv qtcreehkkk hpdasvnfse fskkcserwk tmsakekgkf *rat* #P07155  
1 mgkgdpkkpr gkmssyaffv qtcreehkkk hpdasvnfse fskkcserwk tmsakekgkf *mouse* #AAA20508  
1 mgkgdpkkpt gkmssyaffv qtcreehkkk hpdasvnfse fskkcserwk tmsakekgkf *human* #AAA64970  
A box

61 edmakadkar yeremktyip pkgetkkkfk dnapkrpps afflfcseyr pkikgehppl *rat*  
61 edmakadkar yeremktyip pkgetkkkfk dnapkrpps afflfcseyr pkikgehppl *mouse*  
61 edmakadkar yeremktyip pkgetkkkfk dnapkrips afflfcseyr pkikgehppl *human*  
B box

121 sigdvakklg emwnntaadd kqpyekkaak lkeyekdia ayrakgkpa akkgvvkaek *rat*  
121 sigdvakklg emwnntaadd kqpyekkaak lkeyekdia ayrakgkpa akkgvvkaek *mouse*  
121 sigdvakklg emwnntaadd kqpyekkaak lkeyekdia ayrakgkpa akkgvvkaek *human*

181 skkkkeeedd eedeedeede eedeede deee dddde *rat*  
181 skkkkeeedd eedeedeede eedeede deee dddde *mouse*  
181 skkkkeeedd eedeedeede eedeedeede dddde *human*

FIG. 13

**FIG. 14A**

**NG\_000897 DNA (bases 150-797)**

ATGGGCAAAG	GAGATCCTAA	GAAGCCGACA	GGCAAAATGT	CATCATATGC
ATTTTTTTGTG	CAAACCTTGTC	GGGAGGAGCA	TAAGAAGAAG	CACCCAGATG
CTTCAGTCAA	CTTCTCAGAG	TTTTCTAAGA	AGTGCTCAGA	GAGGTGGAAG
ACCATGTCTG	CTAAAGAGAA	AGGAAAATTT	GAAGATATGG	CAAAGGCGGA
CAAGGCCCGT	TATGAAAGAG	AAATGAAAAC	CTATATCCCT	CCCAAAGGGG
AGACAAAAAA	GAAGTTCAAG	GATCCCAATG	CACCCAAGAG	GCTTCCTTCG
GCCTTCTTCC	TCTTCTGCTC	TGAGTATCGC	CCAAAAATCA	AAGGAGAACA
TCCTGGCCTG	TCCATTGGTG	ATGTTGCGAA	GAAACTGGGA	GAGATGTGGA
ATAACACTGC	TGCAGATGAC	AAGCAGCCTT	ATGAAAAGAA	GGCTGCGAAG
CTGAAGGAAA	AATACGAAAA	GGATATAGCT	GCATATCGAG	CTAAAGGAAA
GCCTGATGCA	GCAAAAAAGG	GAGTTGTCAA	GGCTGAAAAA	AGCAAGAAAA
AGAAGGAAGA	GGAGGAAGAT	GAGGAAGATG	AAGAGGATGA	GGAGGAGGAG
GAAGATGAAG	AAGATGAAGA	AGATGAAGAA	GAAGATGATG	ATGATGAA

**FIG. 14B**

**NG\_000897 Protein**

MGKGDPPKPT	GKMSSYAFFV	QTCREEHKKK	HPDASVNFSE	FSKKCSERWK
TMSAKEKGKF	EDMAKADKAR	YEREMKTYIP	PKGETKKKFK	DPNAPKRLPS
AFFLFCSEYR	PKIKGEHPGL	SIGDVAKKLG	EMWNNTAADD	KQPYEKKAAC
LKEKYEKDIA	AYRAKGKPGA	AKKGVVKAEK	SKKKKEEEEED	EDEEDEDEEEE
EDEEDEDEEE	EDDDDE			

**FIG. 14C**

**AF076674 DNA (bases 1-633)**

ATGGGCAAAG	GAGATCCTAA	GAAGCCGAGA	GGCAAAATGT	CATCATATGC
ATTTTTTTGTG	CAAACCTTGTC	GGGAGGAGCA	TAAGAAGAAG	CACTCAGATG
CTTCAGTCAA	CTTCTCAGAG	TTTTCTAACA	AGTGCTCAGA	GAGGTGGAAG
ACCATGTCTG	CTAAAGAGAA	AGGAAAATTT	GAGGATATGG	CAAAGGCGGA
CAAGACCCAT	TATGAAAGAC	AAATGAAAAC	CTATATCCCT	CCCAAAGGGG
AGACAAAAAA	GAAGTTCAAG	GATCCCAATG	CACCCAAGAG	GCCTCCTTCG
GCCTTCTTCC	TGTTCTGCTC	TGAGTATCAC	CCAAAAATCA	AAGGAGAACA
TCCTGGCCTG	TCCATTGGTG	ATGTTGCGAA	GAAACTGGGA	GAGATGTGGA
ATAACACTGC	TGCAGATGAC	AAGCAGCCTG	GTGAAAAGAA	GGCTGCGAAG
CTGAAGGAAA	AATACGAAAA	GGATATTGCT	GCATATCAAG	CTAAAGGAAA
GCCTGAGGCA	GCAAAAAAGG	GAGTTGTCAA	AGCTGAAAAA	AGCAAGAAAA
AGAAGGAAGA	GGAGGAAGAT	GAGGAAGATG	AAGAGGATGA	GGAGGAGGAA
GATGAAGAAG	ATGAAGAAGA	TGATGATGAT	GAA	

**FIG. 14D**

**AF076674 Protein**

MGKGDPPKPR	GKMSSYAFFV	QTCREEHKKK	HSDASVNFSE	FSNKC SERWK
TMSAKEKGKF	EDMAKADKTH	YERQMKTYIP	PKGETKKKFK	DPNAPKRPPS
AFFLFCSEYH	PKIKGEHPGL	SIGDVAKKLG	EMWNNTAADD	KQPG EKKAAC
LKEKYEKDIA	AYQAKGKPEA	AKKGVVKAEK	SKKKKEEEEED	EDEEDEDEEEE
DEEDEEDDDD	E			

**FIG. 14E**

**AF076676 DNA (bases 1-564)**

```
ATGGGCAAAG GAGACCCTAA GAAGCCGAGA GGCAAAATGT CATCATATGC
ATTTTTTGTG CAAACTTGTC GGGAGGAGTG TAAGAAGAAG CACCCAGATG
CTTCAGTCAA CTTCTCAGAG TTTTCTAAGA AGTGCTCAGA GAGGTGGAAG
GCCATGTCTG CTAAAGATAA AGGAAAATTT GAAGATATGG CAAAGGTGGA
CAAAGACCGT TATGAAAGAG AAATGAAAAC CTATATCCCT CCTAAAGGGG
AGACAAAAAA GAAGTTCGAG GATTCCAATG CACCCAAGAG GCCTCCTTCG
GCCTTTTTTG TGTTCTGCTC TGAGTATTGC CCAAAAATCA AAGGAGAGCA
TCCTGGCCTG CCTATTAGCG ATGTTGCAAA GAAACTGGTA GAGATGTGGA
ATAACACTTT TGCAGATGAC AAGCAGCTTT GTGAAAAGAA GGCTGCAAAG
CTGAAGGAAA AATACAAAAA GGATACAGCT ACATATCGAG CTAAAGGAAA
GCCTGATGCA GCAAAAAGG GAGTTGTCAA GGCTGAAAAA AGCAAGAAAA
AGAAGGAAGA GGAG
```

**FIG. 14F**

**AF076676 Protein**

```
MGKGDPPKPR GKMSYAFFV QTCREECKKK HPDASVNFSE FSKKCSERWK
AMSAKDKGKF EDMAKVDKDR YEREMKTYIP PKGETKKKFE DSNAPKRPPS
AFLFCSEYC PKIKGEHPGL PISDVAKKLV EMWNNTFADD KQLCEKKAAC
LKEYYKDDTA TYRAKGKPD AAKGVVKA EKSKKKKEE
```

**FIG. 14G**

**AC010149 DNA (bases 75503-76117)**

```
ATGGACAAAG CAGATCCTAA GAAGCTGAGA GGTGAAATGT TATCATATGC
ATTTTTTGTG CAAACTTGTC AGGAGGAGCA TAAGAAGAAG AACCAGATG
CTTCAGTCAA GTTCTCAGAG TTTTAAAGA AGTGCTCAGA GACATGGAAG
ACCATTTTGT CTAAAGAGAA AGGAAAATTT GAAGATATGG CAAAGGCGGA
CAAGGCCCAT TATGAAAGAG AAATGAAAAC CTATATCCCT CCTAAAGGGG
AGAAAAAAA GAAGTTCAAG GATCCCAATG CACCCAAGAG GCCTCCTTTG
GCCTTTTTTC TGTTCTGCTC TGAGTATCGC CCAAAAATCA AAGGAGAACA
TCCTGGCCTG TCCATTGATG ATGTTGTGAA GAAACTGGCA GGGATGTGGA
ATAACACCGC TGCAGCTGAC AAGCAGTTT ATGAAAAGAA GGCTGCAAAG
CTGAAGGAAA AATACAAAAA GGATATTGCT GCATATCGAG CTAAAGGAAA
GCCTAATTCA GCAAAAAGA GAGTTGTCAA GGCTGAAAAA AGCAAGAAAA
AGAAGGAAGA GGAAGAAGAT GAAGAGGATG AACAAGAGGA GGAAAATGAA
GAAGATGATG ATAAA
```

**FIG. 14H**

**AC010149 Protein**

```
MDKADPKLR GEMLSYAFFV QTCQEEHKKK NPDASVKFSE FLKKCSETWK
TIFAKEKGKF EDMAKADKAH YEREMKTYIP PKGEKKKKFK DPNAPKRPL
AFFLFCSEYR PKIKGEHPGL SIDDVVKKLA GMWNNTAAAD KQFYEKKAAC
LKEYYKDDIA AYRAKGKPN AKKRVVKA EKSKKKKEE EDEQEENE
EDDDK
```



**FIG. 14I**

**AF165168 DNA** (bases 729-968)

```
ATGGGCAAAG GAGATCCTAA GAAGCCGAGA GGCAAAATGT CATCATGTGC
ATTTTTTTGTG CAAACTTGTT GGGAGGAGCA TAAGAAGCAG TACCCAGATG
CTTCAATCAA CTTCTCAGAG TTTTCTCAGA AGTGCCCAGA GACGTGGAAG
ACCACGATTG CTAAAGAGAA AGGAAAATTT GAAGATATGC CAAAGGCAGA
CAAGGCCCAT TATGAAAGAG AAATGAAAAC CTATATACCC
```

**FIG. 14J**

**AF165168 Protein**

```
MGKGDPPKPR GKMSSCAFFV QTCWEEHKKQ YPDASINFSE FSQKCPETWK
TTIAKEKGKF EDMPKADKAH YEREMKTYIP
```

**FIG. 14K**

**XM\_063129 DNA** (bases 319-558)

```
AAACAGAGAG GCAAAATGCC ATCGTATGTA TTTTGTGTGC AAAGTTGTCC
GGAGGAGCGT AAGAAGAAAC ACCCAGATGC TTCAGTCAAC TTCTCAGAGT
TTTCTAAGAA GTGCTTAGTG AGGGGGAAGA CCATGTCTGC TAAAGAGAAA
GGACAATTTG AAGCTATGGC AAGGGCAGAC AAGGCCCGTT ACGAAAGAGA
AATGAAAACA TATATCCCTC CTAAAGGGGA GACAAAAAAA
```

**FIG. 14L**

**XM\_063129 Protein**

```
KQRGKMPSYV FCVQTCPEER KKKHPDASVN FSEFSKKCLV RGKTMSAKEK
GQFEAMARAD KARYEREMKT YIPPKGETKK
```

**FIG. 14M**

**XM\_066789 DNA** (bases 1-258)

```
ATGGGCAAAA GAGACCCTAA GCAGCCAAGA GGCAAAATGT CATCATATGC
ATTTTTTTGTG CAAACTGCTC AGGAGGAGCA CAAGAAGAAA CAACTAGATG
CTTCAGTCAG TTTCTCAGAG TTTTCTAAGA ACTGCTCAGA GAGGTGGAAG
ACCATGTCTG TTAAAGAGAA AGGAAAATTT GAAGACATGG CAAAGGCAGA
CAAGGCCTGT TATGAAAGAG AAATGAAAAT ATATCCCTAC TTAAAGGGGA
GACAAAAA
```

**FIG. 14N**

**XM\_066789 Protein**

```
MGKRDPKQPR GKMSYAFFV QTAQEEHKKK QLDASVSFSE FSKNCSEKWK
TMSVKEKGKF EDMAKADKAC YEREMKIYPY LKGRQK
```

**FIG. 14O**

**AF165167 DNA** (bases 456-666)

ATGGGCAAAG GAGACCCTAA GAAGCCAAGA GAGAAAATGC CATCATATGC  
ATTTTTTTGTG CAAACTTGTA GGGAGGCACA TAAGAACAAA CATCCAGATG  
CTTCAGTCAA CTCCTCAGAG TTTTCTAAGA AGTGCTCAGA GAGGTGGAAG  
ACCATGCCTA CTAAACAGAA AGGAAAATTC GAAGATATGG CAAAGGCAGA  
CAGGGCCCAT A

**FIG. 14P**

**AF165167 Protein**

MGKGDPPKPR EKMPSYAFFV QTCREAHKNK HPDASVNSSE FSKKCSERWK  
TMPTKQKGKF EDMAKADRAH